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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/797,974

03/11/2004

Renato B. Slave

10541-1923

6278

57444

7590

07/20/2006

AUTOMOTIVE COMPONENTS HOLDINGS LLC  
C/O MACMILLAN, SOBANSKI & TODD, LLC  
ONE MARITIME PLAZA, FIFTH FLOOR  
720 WATER STREET  
TOLEDO, OH 43604-1853

EXAMINER

PILKINGTON, JAMES

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/797,974		SLAVE ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	James Pilkington		3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/19/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/11/04 &amp; 8/8/05</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities:

- Page 7 lines 15 and 16 reads "body section 20" should be - - body section 30 - -

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant states that the bushing is rotatable. Upon the inspection of Figure 1 the examiner doesn't see how that is possible since the rack is angled in the assembly. If the bushing is being rotated clockwise the thicker side of the bushing can't rotate because it will contact the rack housing and if the bushing is being rotated counter-clockwise the thinner side of the bushing will contact the rack housing. In either case the bushing cannot rotate. Is there some clearance or other aspects of the bushing that are not shown in the drawing that allows the bushing to rotate around the angled rack and rack housing?

Claim 11 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification, well enabling for the use of a lock washer, is not enabling for the use of a lock nut.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re clm 1, it is unclear as to what end is being referred to by the phrase "the end of the pinion" line 12. What end of the pinion? The pinion has two ends and it is possible for the "second end" of the bushing to be adjacent to either end.

Re clm 5, if the nut and housing are coupled via a press-fit coupling how does the nut be loosened (page 9 line 11-19) in order to change the pinion to a different setting? Also, what structure allows for press-fitting?

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Ballester, USP 6,439,337.

Re clm 1, Ballester discloses a steering mechanism for an automotive vehicle comprising:

- A pinion (600) having a shaft section (is 600) and a gear section (700)
- A rack (200) having a gear section coupled with the gear section of the pinion
- A housing (800)
- A bushing (110) rotatably received within the housing (800), the bushing (110) being rotatable to position the pinion with respect to the rack, the bushing (110) defining a first end and a second end, the second end being adjacent the end of the pinion
- A nut (111) engaged with the bushing (110) to inhibit rotational movement, the nut located adjacent the first end of the bushing

Re clm 2, the nut (11 in Figure 2) having a threaded inner surface, and the bushing (7 in Figure 2) having a threaded outer surface.

Re clm 3, the pinion (600) is received by the nut (111).

Re clm 4, the nut (111) is coupled with the housing (800).

Re clm 5, the nut (111) and the housing (800) are coupled via a press-fit coupling.

Re clm 6, the nut (111) including a flange (near 100', section extending from the nut see Figure 5) configured to apply a force to the housing (800), wherein the force is substantially perpendicular to the pinion outer wall.

Re clm 7, the housing (800) being substantially cylindrical (see Figure 4).

Re clm 8, a retainer (8, figure 2) located adjacent to the second end of the bushing, the retainer configured to prevent axial movement between the bushing (7) and the housing (2).

Re clm 9, the retainer (8) is a ring shaped retainer coupled wit the bushing (part of the bushing), and the ring-shaped retainer contacts a surface of the housing (2).

Re clm 10, the bushing having a body section (by character 110) with a first diameter and a collar section (by character 120) with a second diameter larger than the first diameter, the nut positioned adjacent to the collar section.

Re clm 11, the nut (111) is a lock-nut.

Re clm 12, the bushing (110) has an inner wall, an outer wall, and a radius, the inner wall and the outer wall defining the bushing thickness, the bushing thickness varying along the bushing radius (see Figure 3).

Re clm 13, a first bearing (113) assembly rotatably coupling the pinion and the bushing.

Re clm 14, a second bearing (114) assembly rotatably coupling the pinion and the bushing, the first bearing assembly located adjacent to the bushing first end , the second bearing assembly located adjacent the bushing second end.

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Pilkington whose telephone number is (571) 272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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7.17.2006



RICHARD RIDLEY  
SUPERVISORY PATENT EXAMINER